

Interactive Age

EXCLUSIVE

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April 27, 1995 -- 4 p.m. ET

AOL eyes acquisition of Internet firm WAIS

America Online Inc. is negotiating to acquire Internet consulting and software company WAIS Inc. in a move that would enhance AOL's ability to help information providers get on the World Wide Web, *Interactive Age Daily* has learned.

AOL already provides some software and consulting services to information providers through its Websoft subsidiary. But in WAIS, AOL will buy a company that has established relationships with such publishing companies as Dow Jones & Co., *The New York Times*, and educational publisher Scholastic Corp. WAIS also maintains the World Wide Web server for CMP Publications Inc., which owns *Interactive Age* and more than a dozen other technology publications.

John Duhring, vice president of business development at WAIS, declined comment. But he said that WAIS has had a relationship with AOL for some time, having built pieces of the Internet gateway within AOL's commercial service. Another connection between AOL and WAIS is William Dunn, president of AOL's Websoft subsidiary, who until recently was a member of WAIS' board.

WAIS is well respected in the area of Internet publishing, but it has not taken on investors. With AOL as a parent, WAIS will be freed up to concentrate on aggressively expanding its business, even if that means a year or two of financial losses, sources said.

The acquisition would be the most recent in a string of AOL moves that began last fall when the onliner purchased Booklink Technologies Inc. and Navisoft, and subsequently ANS. The financial terms of the proposed WAIS deal could not be determined, but it likely includes AOL stock.

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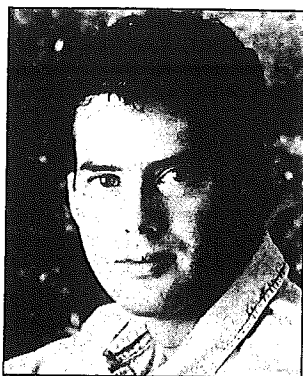
Racist Killer Jailed with Help From Nephew's Book

Nearly 30 years after white supremacist Byron De La Beckwith was first charged with the murder of Mississippi NAACP leader Medgar Evers, a Mississippi jury has finally found him guilty—and a book by the killer's nephew played a role in winning the conviction.

In a strange coincidence, Reed Massengill's *Portrait of a Racist: The Man Who Killed Medgar Evers?* (St. Martin's Press) was shipping to bookstores as the verdict was being handed down. Massengill, who is De La Beckwith's nephew, had been subpoenaed by the prosecution and testified during the trial.

As a child Massengill did not know much about his uncle—De La Beckwith and Massengill's aunt have been divorced for years—but he discovered just how notorious De La Beckwith was when he wrote a class paper on him in the ninth grade. "I found articles in *Newsweek* and *Time* and it made me curious; I never knew he was so famous," Massengill told *PW*. The curiosity lingered through journalism school and resulted in a book that, Massengill hopes, "will explain the motivations of a racist."

Although the book was not initially slated for heavy



All in the family: Massengill exposes racist uncle.

promotion by St. Martin's, De La Beckwith's conviction has generated a rush of media attention. Besides numerous newspaper articles about the case, Massengill has done 12 to 15 radio interviews for stations around the country, including National Public Radio, and will appear on *Larry King Live*. A review is scheduled for the *New York Times Book Review*.

The book contains more than 400 letters written to Massengill's aunt, examines the religious underpinnings of De La Beckwith's racism and includes interviews with De La Beckwith, his second wife and former White Knights and Ku Klux Klansmen.

—CALVIN REID

Encyclopaedia Britannica Goes Online

In another indication of the possible future of reference publishing, Encyclopaedia Britannica, publisher of the 225-year-old, 32-volume encyclopedia, announced its plans to distribute the work electronically to universities and some public libraries over Internet, the increasingly vital worldwide computer network.

EB now joins a number of encyclopedia publishers that offer their multivolume hardcover encyclopedias online through computer networks. Compton's Interactive Encyclopedia is offered through Prodigy and American Online and Grolier's Academic American is offered via America Online and CompuServe.

With revenues of more than \$500 million, EB will be the largest encyclopedia service to be offered. The encyclopedia will be available online to university faculties and students in the fall of 1994 with commercial availability to a larger consumer audience likely to follow. Officials at EB said they were considering a variety of pricing methods, including a subscription price and reference by reference pricing. Other online encyclopedias are provided as standard services of subscription membership to online services like American Online or CompuServe.

EB is working with WAIS, a Menlo Park, Calif., software developer, to devise a variety of search and retrieval software to organize the encyclopedia's more than 300 million characters and 2000 illustrations.

Joe Esposito, the president of Encyclopaedia Britannica, said, "We're doing it ourselves because you just can't make money licensing your content... It's rather unfortunate that so many of the content providers have put themselves in a position where they're held hostage to the online services."

Groupe de la Cité Results Up in Paris

Groupe de la Cité, France's number two publishing combine, which in books alone looks to be a length ahead of its famous rival Hachette, estimates 1993 sales at 7.06 billion francs (some \$1.2 billion at a current conversion). That represents a 4% rise over the previous year, which in France is a whopping gain. Profits are steeply higher (+18.7%).

Cité gives credit to the restructuring of trade affiliates Plon, Laffont, Julliard, Presses/Solar and Pocket, which included digging them out of a central headquarters and spreading them around Paris. Cité is also the home of Nathan school and children's book publishing, and of increasingly international Larousse, with Harrap, Chambers and Kingfisher for the English language.

But that was all the good news. Cité ownership is an equal partnership between industrial group Alcatel-Alsthom and CEP Communication, which specializes in professional press and trade exhibitions, and both activities took a beating last year.

—HERBERT R. LOTTMAN

St. John to Head New Media for STM at Wiley

Gregory St. John has been named the director of New Media Development for John Wiley & Sons Scientific, Technical & Medical publishing division.

The appointment continues Wiley's emphasis on the development of electronic formats and said Eric Swanson, v-p and general manager of the STM division, St. John will "work closely with publishers and editors to identify and take advantage of electronic publishing opportunities."

St. John will also serve as co-chairman of the New Media Publishing Committee of the Professional, Reference and Trade group.

Sussman Is New U.S. Head at Exley

Steven Sussman, former group associate publisher at *Publishers Weekly*, *Library Journal* and *School Library Journal*, has been named president of the U.S. sales and marketing operation for Exley Giftbooks, a division of Britain-based Exley Publications Ltd.

Sussman's appointment fills the vacancy left by the U.S. division's founding president, Dave Weiner, who resigned in December. Prior to joining *PW*, Sussman launched and ran the U.S. subsidiary of Dorling Kindersley, which is also based in the U.K.

"With Steven joining Exley Giftbooks, we are strengthening our commitment to the U.S. market and we will now look to expand our business presence and market share," said Exley's CEO Lincoln Exley.

Exley's U.S. offices are currently in Mount Kisco, N.Y., but Sussman plans to relocate them to Manhattan to be closer to Exley's market and to its distributor, Brooklyn-based Mercedes Data Systems.

US needs a WAIS in the White House

In terms of popularity and legislative moves, I think US President Bill Clinton had a great first year in office in 1993. But his record for appointing individuals to fill important administrative posts was poor. Public humiliation was heaped on his administration over his nomination of Zoe Baird for attorney general and Morton Halperin for assistant secretary of defense.

That humiliation could have been avoided had the White House search team not shouldered an electronic handicap that preordained these candidacies to political oblivion. I offer the strategy below to revitalize an impotent headhunting process.

Electronic agent. To preclude further embarrassment of Presidential proportions, I believe future personnel searches must rely on an electronic investigative agent that can be programmed to seek out individuals who pass the latest political litmus tests. Some of that new-fangled digital computer technology that Vice President Gore advocates could be integrated for this purpose.

Simply put, the President needs the tools of a modern explorer and investigator, not the anachronistic trench coat snooping of a J. Edgar Hoover. Any Silicon Valley hacker worth his or her weight in pirated cellular telephone access codes could obtain more information about a high-level nominee faster than 10 White House investigators sifting through interview transcripts, trash cans, and tax returns.

Hence, I recommend that the Executive Branch adopt an entirely computerized investigation system. I know that substituting an electronic system for human investigators might seem draconian and impersonal — even a bit Orwellian. But this approach could contribute to the reinvention of government that Gore talks about.

Quick, accurate data. An automated background investigation tool (ABIT) could derive information about a candi-

date's tax liability concerning babysitters and nannies. It would empower the search team to learn about an individual's intellectual past and discern his or her opinions on topical issues. Published statements that are sure to inflame the rhetoric of right-wing partisans could be located quickly. The Chief Executive would have more time to decide whether to lend his esteemed office to the candidate's nomination.

The ABIT's very existence should be hidden behind the national security veil to preclude subpoenas via the Freedom of Information Act. Hackers from the National Security Agency and the CIA could provide back doors to IRS tax returns and FBI criminal databases. Select documents from the National Archives could be brought on line. The Library of Congress, once digitized, could furnish academic publications by the more pedantic candidates. Bill Clinton could swing these little details with an executive order. After all, he's the President of the United States!

How a WAIS works. The fingertip availability of these archives enables a user to formulate queries instantaneously and retrieve information on a variety of topics, both past and present. Specifically, the search team would have a wide-area information server (WAIS) in the White House as the ABIT core.

With WAIS technology, the most politically vexing questions can be instantaneously dispatched. The technology affords rapid electronic reassurance or refutation about a nominee's character and propriety for office.

Want to find out if a Justice Department nominee has written inflammatory material on the Voting Rights Act? Issue a query such as, "Critical remarks and editorial opinions by Lani Guinier on the Voting Rights Act" to the WAIS. In a few minutes at most, every electronically archived journal and surveillance report matching the query content would be recovered. A narrowly focused selection of materials to

browse and evaluate would be returned. The searchers wouldn't have to swim in a sea of information, just tip-toe through a wading pool. The WAIS-recovered opinions and material would inform, strengthen, and reaffirm the initial decisions.

The only danger WAIS technology presents to the decision-making process is the chance that the archives could contain false or misleading information, and you might dismiss a counselor's opinion controverting the data. WAIS technology could be used to digitize the *Congressional Record* and committee hearings. The administration might even encrypt sensitive WAIS-generated folders and "accidentally" delete the keys used to encode certain folder documents, just in case an independent prosecutor subpoenas the White House WAIS archive.

Electronic opinion polls. To really base policy decisions on popular opinion, the administration should legislate an Electronic Voting Rights Act. Each citizen's electronic ballot could be authenticated by an electronic commerce system run by the Postal Service and delivered to the White House WAIS over the information superhighway for automatic tabulation. The press, spin doctors, and most importantly, Congress would be bypassed; they wouldn't have time to react.

Why, if Abe Lincoln were alive today, he'd proclaim "Government of e-mail, by e-mail, for e-mail!" Instantaneous government — an idea whose time has come.

Yes, the President should save himself some grief by avoiding the next flap over a nominee. He should dump the labor-intensive staff that botches nominee investigations and save the taxpayer money to boot. He should put a WAIS in the White House!

Richard Marlon Stein
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Legal Line

by Cary Griffith

Pace of Legal Technology Furious, But Functional

Look into the law office of today and you are likely to find technology doing everything from assembling your documents to managing your mail. Look into the law office of the future, and you're likely to see more of the same—only simpler, faster, smaller and better.

What are some of the technologies that we are already beginning to see? What can we expect?

One of the most dramatic trends continues to be more for less. More power, more speed, and more storage capacity for less money. We have seen the production cycles between new generations of microprocessors get shorter and shorter. And with the release of each new microprocessor, the technology improves in almost geometric progression, while becoming more and more affordable.

“While the image of a database is not searchable, it is in essence a photocopy of the document with everything intact including signatures, notes in margins, and other handwritten comments.”

While getting cheaper, computer technology is also getting more compact. Using CD-ROM technology, it is possible to store approximately 600-800 megabytes of information on a 4 3/4 inch disc, or 300,000 to 450,000 typed pages of text. But in the not too distant future some analysts believe the storage capacity of a 3 1/2 inch disc may be as high as 9 gigabytes.

What does this mean for the practice of law? What we are already beginning to see. Portable, fast, relatively inexpensive technology that can be carried where attorneys need to go: at a document production site, or in the courtroom.

In the past the document production was limited by technology. According to Chere Estrin, president of Quorum/Estrin Group, a Los Angeles-based legal temp agency, production people for large cases used to move from site to site, review and/or copy documents, which would then be sent to a centralized processing facility for further review and coding.

“Today,” Ms. Estrin says, “legal professionals go right on site, taking the technology with them. They pull relevant documents, scan them where they find them, and create document images that can be converted to machine readable text using OCR technology, or left in an image that can be used for coding. Everything is done on the client's doorstep, in one fell swoop.”

The process Ms. Estrin describes is typically referred to as document production. But what is done with the information once it is gathered is also the kind of thing H.G. Wells would have found fascinating, if not incredible.

Companies like Quorum Litigation Services take those documents and convert them to full-text searchable databases, coded databases, and databases containing document images. Each of these in themselves are powerful tools when trying cases and searching for the needle in the haystack. But Quorum uses Knowledge*Link, their open architecture image management application to integrate all three. Knowledge*Link can be used with several standard database engines (e.g., BRS/Search, or Windows Personal Librarian). Using Knowledge*Link Quorum creates hypertext links between the coded, full-text and imaged databases so that litigators can perform a search of a coded or full-text database, and also display the image of the document described.

Imaged databases can be powerful litigation tools. While the image of a database is not searchable, it is in essence a photocopy of the document with everything intact, including signatures, notes in margins, and other handwritten comments.

Knowledge*Link also enables litigators to add a great deal of information to an image. Using Knowledge*Link, legal professionals can annotate images with electronic “sticky notes” or “marginalia,” redline, highlight and/or redact important sections of imaged documents, and perform a wide variety of other kinds of image manipulation.

Quorum is also taking advantage of fast, portable hardware, high density storage media, and sophisticated database technologies to provide the legal community with some of the most sophisticated litigation tools that have ever been invented. They can provide clients with 486-based notebook PCs containing tailor-made coded, and full-text databases. The notebooks can be outfitted with high speed CD-ROM drives. Quorum burns approximately 10,000 to 20,000 images onto one CD-ROM disc, links the images to the other databases, and suddenly litigators have in essence several archive boxes of documents, searchable at the touch of a key, that they can take anywhere—on planes, home, or

in the courtroom.

I mention Quorum's sophisticated use of database and hardware technologies not only because it is an example of what is currently possible, but because it is also a harbinger of things to come: integration. Quorum integrates their image management software with other vendor's standard database management applications. They take advantage of existing high-density storage media to deliver reliable next generation tools. We don't have to look far for other examples of integrating computer and information technologies.

Other leading technology companies are pursuing this same process of examining the legal technology marketplace for new, innovative tools that can be used to augment their own products and services.

West Publishing is another excellent example of computer and information technology integration. Two years ago West introduced WIN, their natural language search engine that can be used to search WESTLAW. Natural language search engines had been around for several years, but never had any company applied the process to an online service the size, breadth, and depth of WESTLAW.

In a related article I reviewed West's newest foray into technology innovation: a voice-activated interface to WESTLAW. In cooperation with Kolvox Communications, Inc., West has created the first speech-recognition product for a computer-assisted legal research service. Kolvox produces LawTALK, a large vocabulary speech recognition application for the legal market.

LawTALK enables attorneys to dictate documents directly into the computer, without typing! Recognizing the value of this kind of technology for their own uses, West adapted it for use with WESTMATE software, their WESTLAW communications software. Now the adapted version of LawTALK enables legal researchers to enter WESTLAW commands and search queries or descriptions by speaking into a microphone attached to a computer terminal.

West has also recently introduced Personal Files/FAST, a full-text database manager that can be used to create tailor-made full-text databases. Again, full-text database managers are not a new concept. But West had adapted the Odyssey Development's ISYS search engine so that it recognizes WESTLAW commands. Some analysts have rated ISYS as the best full-text database manager on the market today. Now WESTLAW researchers have a seamless way to move from WESTLAW to researching the full-text of their own documents.

Of course Quorum and West are not alone. Mead Data Central, the producers

of the LEXIS/NEXIS service, now have at least three wholly-owned subsidiaries: Jurisoft Corporation, Folio Corporation, and Michie. All three of their subsidiaries are involved with different aspects of technology integration. Most recently, Jurisoft and Folio announced DepoPrep, the “first jointly developed software product for the legal market.” (By “first jointly developed” they mean between Folio and Jurisoft.)

In the world of full-text documents deposition transcripts are an anomaly. Unlike many other kinds of case information—letters, complaints, interrogatories, memos, and similar kinds of documents—deposition transcripts have a very specific structure, format and purpose. Pages are usually divided into 25 lines. And each line contains part of the attorney's question, a comment by co-counsel, or the deponent's response. The transcript is a complete version of everything everyone said during the deposition.

The obvious benefit of this kind of structure is that once in printed form, this testimony can be cited line and verse. And nothing works so well in a case as the deponent's own disparaging, or positive, remarks.

Obviously, making these transcripts machine readable, and loading them into an application that can spit back line and verse at the touch of a key, on a laptop, in a courtroom, is something that most litigators will find useful.

DepoPrep converts multiple depositions and trial testimony into files that can be quickly searched, updated and shared across a network, and recognized—with their page and line numbering intact—by Folio VIEWS 3.0 for Windows or DOS.

The point of the preceding is that legal-specific application integration will increasingly be the norm for the legal market.

And what about the kinds of things to watch out for in the future? Prior to West's recent release of LawTALK I would have included voice recognition. Now let's just say we will see more voice recognition in the future.

Other technologies include handwriting recognition, smart searches, multimedia annotation, voice and video, e-mail transmission of video and audio annotations, video conferencing, virtual reality in the courtroom, and the video courtroom, to name only a few.

Some of the preceding is obvious. Others may require some explanation.

Smart searches involve intelligent systems that learn your thought processes, and research methodology so they can anticipate how you perform searches, and suggest other potentially useful ways of research.

Virtual reality in the courtroom involves the use of CAD (computer assisted design) processes to create reenactments of scenes based on case testimony.

The video courtroom will use video conferencing technology to empanel juries from other venues without actually moving the trial. Another variation would be to empanel jurors from all over the nation.

Recipe for Intelligence:

(continued from previous page)

vertical geography—global villages; and WAIS is a mechanism for getting there.

Executive Intelligence (EI) Requirements

In the private sector, intelligence is the framework for developing a specific set of actions. As Daniel S. Himelfarb, Markowitz & McNaughton, Inc., explained, "The long-term goals are strategic development. EI calls for action alternatives and the implications of that action with analysis, options, strategic position, and portfolio mix. Primary sources of EI are competitors, suppliers, experts in the industry, buyers, and managers. Next are the academics and analysts who provide studies, along with Wall Street analysis. Then comes the media; print and TV. Database systems often come up short regarding the perceptions of the marketplace," he added.

Another aspect of EI—its disposal. Secrets can appear in your trash. "Shred it, don't throw it away as a mass of material," advised Paul A. Caldwell, PSYTEP. "Your search strategy and the money you paid for it are on the printout. Your competitors can buy that paper inexpensively and thus the results of your search strategy," he warned.

Japanese Journalism

"In Japan, journalism tends to be on the side of big business, often forgets consumers and the general citizens, and functions as a press club. One can get information from major corporations through that press club," said Keiji Shima, former chairman, NHK (Japan Broadcasting Corp.). "Also, Japanese think tanks are located in major corporations so, in essence, the information is targeted for that corporation. Worldwide vision is lacking," he stated.

"Look at the future," Shima said, "it will be multimedia. Now that Japan is facing a critical depression, it needs to prepare for a new information age and needs more exchange of information. Software development in Japan is very much behind—unless you include Nintendo," he added, "and then it's a different story."

Three Side Shows

One of the shows within the big show of the meeting was the "debate" led by Arthur R. Miller, Harvard Law School, with five panelists. Focused on free information, free speech, and intellectual property rights, the debate was more showmanship than content—interesting, amusing, but with no conclusions.

Another show featured a panel of former KGB leaders, moderated by David MacMichael, Association of National Security Alumni, and looked into the ways the KGB found and used information. According to Vladimir B. Barkovsky, former Deputy Director, KGB Science & Technology Institute, the KGB had access to an enormous amount of information and always tried to find a way to combine information from both open sources and classified ones.

"It was difficult to get permission to read secret sources," said Yuri H. Totrov, former KGB Section Chief for Counter-Intelligence (CIA Affairs)—secret being U.S. and other newspapers. The original sponsor of open sources was the Gorbachev Foundation. Now Russia can obtain any open source, but digesting that information is difficult.

"Many secret sources do exist to locate information one can't find in open sources," said Yuri I. Modin, former deputy director, Research Institute on Intelligence Problems. Totrov commented that the sheer volume and uneven quality of information would have defeated its good use by the Russian government. Sometimes the FSU became a victim of their own disinformation with some high officials not in-the-know believing it.

When asked if the KGB used hacking skills to get open source and secret information, Barkovsky replied, "It's a very great secret." To a question about whether commercial databases were helpful, Totrov said, "It was a great discovery." He wants samples to take to Moscow to show and to broker. As to how receptive Russia will be in the future, he explained that good relations now exist with western intelligence services, and that many common fields of interest exist: terrorism, narcotic trafficking, arms smuggling, and environmental pollution.

Robert Steele's vision of the new information landscape underlies OSS. Formerly in Marine Corps intelligence and now founding president of OSS, he works, eats, and sleeps open source solutions. Apparently indefatigable, a peripatetic traveler, and endless searcher for people who are the makers and shapers of the new information coastline, he put together a program from several bases: members of the secret intelligence community, major players in information policy and industry, and discerning observers.

Lois F. Lunin is an information and communication consultant, writer, and editor based in Washington, DC.

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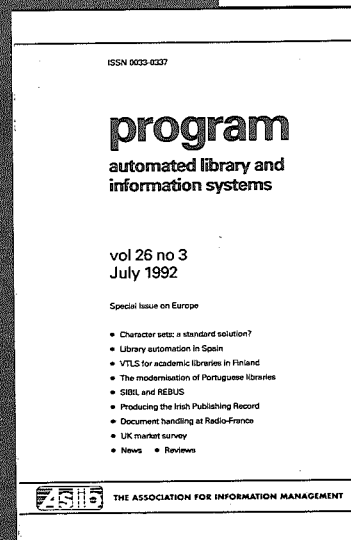
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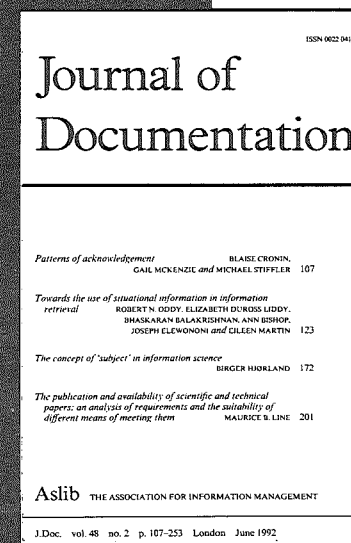
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Recipe for Intelligence:

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nomie basis; its leaders chose knowledge. "Croatia has many professionals, four universities, 200 research organizations, 10,000 researchers, and 60,000 students. Information is the only product they can offer," explained Predrag Pale, Ministry of Science, Technology and Information, Republic of Croatia. Although many of the institutions have PCs, the government wants to enable its people to communicate with the world. They purchased UNIX workstations and communications technology for 100 institutions and 70 percent of the research institutions.

Many of the users are novices, but they can communicate their work and export this research in a safe way through a gopher. With a computer they can send the results of their science research, without cost or barriers, to anyone in the world and eventually gain some benefits.

"This technology has an even broader meaning. It gives the intellectuals what they need—discussion. The intellectual elite can lead the march, so to speak, for a qualitative change to avoid a revolution like Russia's," said Pale. They can also

get world knowledge into the country to know what is going on outside. Investing in such a structure is very cheap, Pale noted, compared with the one million dollars a day they spend for the refugees there.

On the Internet

What information conference can ignore the Internet—that rough and tumble international space criss-crossed by electronic highways and byways. "To understand the profundity of the Internet one must look into its soul," advised Mitch Kapor, Electronic Frontier Foundation. "The Internet is messy, clumsy, hard to use, and not ready for prime time," he said. His nightmare about building super-

highways—thousands of dollars are being invested in the network but it will remain just a vaster wasteland.

Vinton G. Cerf, Corporation for National Research Initiatives, noted how amazing, how diverse, and how far-flung the Internet is: as of September 7, 1993, more than 40,000 registered networks, 92 countries, and growing at 12 percent per month. Every 30 minutes another network is connected. Network users include institutions of all kinds, business enterprises, professional communications, the general public via local access providers and gateways, to commercial publishers, e-mail carriers, and other kinds of networks. While e-mail and file transfer are falling, he noted that other uses are growing, for example, moving video and voice through the Internet and meetings that are multicast. Issues he sees, include: copyright, intellectual property management, privacy, security, authenticity, integrity, and economics.

"With multicasting in use, programs can be sent in real time to countries where new technology is not allowed," explained Lloyd S. Etheredge, The Policy Sciences Center, Inc., Yale University Law School. "Channels can extend to all cultures and establish a direct relationship with the best scientists."

On a more sobering side. Today everything is up in the air. "How much competition will there be in that environment? How do the multimillion dollar carriers see the view? Will there just be an extension of what exists today or will there be new and open platforms," Kapor asked. "Policy issues must deal with uses of the consumer broadband network. We need an open system for lots of people to try the net, to see what the market wants, he advised. We need legislation to address funding policy. We should rethink universal service so that no matter where anyone is, that person can be on."

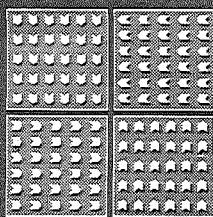
One of EFF's central and driving ambitions is to articulate a set of principles in organizations and government. If they can do this, he thinks it will get the network to serve a variety of interests—those of individuals and community groups. "However, the real issues are not yet on the surface," Kapor added.

Brewster Kahle, WAIS, Inc., who has been working with the intelligence community to help them find information in the literature, explained how WAIS (Wide Area Information Servers) fits into the Internet. WAIS provides a protocol-based mechanism for accessing a variety of remote, full-text information servers. It has the potential for supporting a single interface to a wide variety of information sources. He likened WAIS to the index of a book, useful when you already know what you want. It works over a network, has users in 32 countries, and can browse about 500 databases for information in 12 countries.

Kahle predicts, "Everyone will be a publisher; information agents will scour the net, within a budget; everything will become WAIS-enabled. Government information will be free and commercial information will be available at reasonable prices. We are moving toward a

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ANNUAL REVIEW OF INFORMATION SCIENCE AND TECHNOLOGY



asis

MARSHA E. WILLIAMS, EDITOR
VOLUME 28 1993

NEW

Annual Review of Information Science and Technology (ARIST) is one of the most important and indispensable annuals for the information science and technology professional. Published by Learned Information, Inc., on behalf of the American Society for Information Science (ASIS), ARIST is the annual publication that keeps information professionals informed about what is going on in the broad field of information science and technology. **ARIST Volume 28 (1993)** is the latest volume in this legendary series.

Since 1966, ARIST has been continuously at the cutting edge in contributing a useful and comprehensive view of information science and technology. ARIST reviews numerous topics within the field and ultimately provides an annual source of ideas, trends, and references to the literature. The newest edition of ARIST covers nine topics as follows:

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Volume 28, 1993

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Recipe for Intelligence: Open Information, Analysis, and a Dash of Intrigue

by Lois F. Lunin

In today's cloak and dagger work, the cloak covers the huddle during the search and analysis at the keyboard; the dagger thrusts the brain force of the strategy over the Internet. Far-fetched? Only in a literal sense of the transmission.

"National Security & National Competitiveness: Open Source Solutions" held last November 2-4 in Washington, DC, pictured intelligence operations, like the CIA's and industry's, in what Alvin and Heidi Toffler call the Third Wave society.

The symposium addressed the huge changes that occur daily in the world of politics, global interchange of information, and ways to protect creative property rights. It also recognized that sometimes all a country might have to export and import is information and knowledge.

Many experts examined and probed these topics: The Tofflers, Vinton Cerf, Brewster Kahle, Mitch Kapor, former KGB deputies from the Former Soviet Union (FSU), and top-ranking officials from France, Japan, Sweden, Croatia, and England.

National security is being redefined. "Today a nation's sense of security is no more than an individual's perceived security," said Robert D. Steele, president of Open Source Solutions, Inc. (OSS), sponsor of the symposium. "Borders are irrelevant, an artificial straight jacket. In global intelligence," he continued, "we get secrets before they are secret—and all from open sources; we should use those first. However, we still need clandestine, secret sources."

How the Tofflers See the Third Revolution

As authors, the Tofflers collect, store, disseminate, and study the impact of information. They see the third massive wave of world change, what they term the Third Revolution (the first being agrarian and the second, industrial). This wave is creating a new civilization, changing people, markets, media, communities, logic, language, and more. We are moving from brute force, they say, and society is becoming more differentiated, radically different from one with mass distribution.

Third wave economies are the newest tier of the global system. Their need is not for more geographic territory but rather, for access to, even control of, world databases and networks and for markets for knowledge products and services.

The third wave is ill-organized politically. We're still a hardware, smoke-stack-based society, the Tofflers say, and we need to focus differently. The first command of the third wave; a tolerance of diversity. Imagery is more important than ever; the camera sets the agenda. It sets the issue of the week or the day, the pace at which a decision is made, and the agenda, without the decision-

maker having any knowledge, therefore presenting a real democratic paradox. Imagery may destroy or help. Whoever has the mike has the power. (We've known much of this, yet the impact seems more forceful today.) Their new book, *War and Anti-War: Survival at the Dawn of the 21st Century* explores many of these themes.

Impact of Open Sources

Open source information must be accurate, timely, and credible. CNN, commented several speakers, is a great intelligence tip-off. Today, information reaches the policymaker through the open sources of newspaper, radio, and TV before the intelligence office gets there, but

the intelligence office brings credibility.

"Yet much good data is not online and must be located the old-fashioned way—in the library or archives," Lt. Gen. C. Norman Wood, Ret., BDM Federal, Inc., added. "And the information process is never ending—acquisition must continue, database currency must be maintained, and one must attend meetings and trade shows for sources of new information and updates of the old. Language needs updating, and human stroking is important," Wood advised.

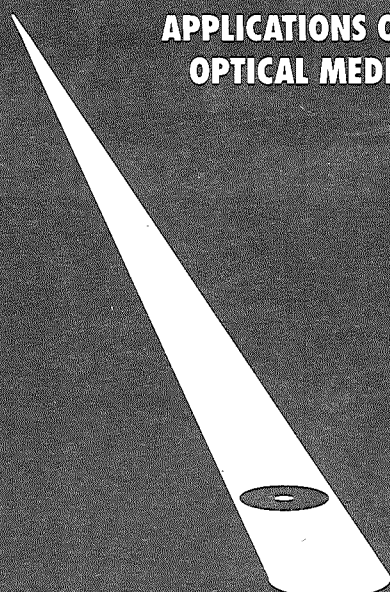
The Mouse That Transmitted

Croatia is a new state, recognized in 1991. To survive, it needed a new eco-
(continued on next page)

Applications of optical media

NEW!

APPLICATIONS OF OPTICAL MEDIA



EDITED BY CHARLES OPPENHEIM

4sib

edited by Charles Oppenheim

A timely update on the applications of recent optical media. Now that CD-ROM has matured as a technology there is the need to identify the management issues involved in using or developing products and services based on this and other optical media developments. The emphasis is on CD-ROM with an important multimedia contribution. The papers cover costs, selection, implementation and management implications. The expert contributors, including Caroline Moore, Joan Day, W. Binder, K. W. Neubauer, Michelle Green, Bernard Von Ommerslaghe, Robin Williamson, Cherril Smith and William Beckett, give a perspective to the technologies that will have an impact on the optical publishing field for years to come.

1993/136 pp/ISBN: 0-85142-290-X/hardbound

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- The market for CD-ROM
- The use made by information managers of CD-ROM products
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- Celex on CD-ROM
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